

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No.	MO-0002101
Owner:	GE Industrial Systems
Address:	41 Woodford Ave., Plainville, CT 06062
Continuing Authority:	GE Industrial Systems
Address:	2401 East Sunshine, Springfield, MO 65804
Facility Name:	GE Industrial Systems
Facility Address:	2401 East Sunshine, Springfield, MO 65804
Legal Description:	SE ¼, SE ¼, Sec. 29, T29N, R21W, Greene County
Receiving Stream:	Unnamed Tributary to Galloway Branch (U)
First Classified Stream and ID:	Galloway Creek (P) (03373)
USGS Basin & Sub-watershed No.:	(11010002-010005)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

**FACILITY DESCRIPTION**

Outfall #001 – Industry - SIC #3621

Non-contact cooling water.  
Design flow is 0.420 MGD.  
Actual flow is 0.214 MGD.

Outfall #002 – Industry – SIC #3621

Stormwater runoff.  
Flow is dependent upon precipitation.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

January 27, 2004

Effective Date

January 26, 2009

Expiration Date

Stephen M. Mahfood, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

R. Bruce Martin, Director, Southwest Regional Office

<u>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)</u>					PAGE NUMBER 2 of 6	
PERMIT NUMBER MO-0002101						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until November 30, 2007. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u> (Note 1)						
Flow	MGD	*		*	once/weekday**	24 hr. total
Temperature	°F	90			once/weekday**	grab
pH – Units	SU	***		***	once/quarter*****	grab
Total Residual Chlorine (Note 2)	mg/L	1.0		1.0	once/quarter*****	grab
Total Phosphorus	mg/L			1.0	once/quarter*****	grab
<u>Outfall #002</u>						
Flow	MGD	*		*	once/quarter*****	instantaneous estimate
Rainfall*****	in/day	*		*	once/quarter*****	rainfall event total
Total Suspended Solids (Note 3)	mg/L	45		30	once/quarter*****	grab
Oil & Grease (Note 3)	mg/L	15		10	once/quarter*****	grab
Total Phosphorus	mg/L			1.0	once/quarter*****	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2004</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)					PAGE NUMBER 3 of 6	
PERMIT NUMBER MO-0002101						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective December 1, 2007 and remain in effect until the expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u> (Note 1)						
Flow	MGD	*		*	once/weekday**	24 hr. total
Temperature	°F	90			once/weekday**	grab
pH – Units	SU	***		***	once/quarter*****	grab
Total Residual Chlorine (Note 2)	mg/L	1.0		1.0	once/quarter*****	grab
Total Phosphorus	mg/L			0.5	once/quarter*****	grab
<u>Outfall #002</u>						
Flow	MGD	*		*	once/quarter*****	instantaneous estimate
Rainfall*****	in/day	*		*	once/quarter*****	rainfall event total
Total Suspended Solids (Note 3)	mg/L	45		30	once/quarter*****	grab
Oil & Grease (Note 3)	mg/L	15		10	once/quarter*****	grab
Total Phosphorus	mg/L			0.5	once/quarter*****	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2008</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

#### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* Once each weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.
- \*\*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- \*\*\*\*\* Sample once per quarter in the months of January, April, July, and October. Reports shall be submitted by the 28<sup>th</sup> day of the month following the reporting period, e.g. Reporting period is the 1<sup>st</sup> quarter (sample collected in January), report due by April 28<sup>th</sup>.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

\*\*\*\*\* Sampling shall occur once per quarter in the periods of January through March, April through June, July through September, and October through December, please note that monitoring reports shall be submitted no later than the 28<sup>th</sup> day of the month following the monitoring period (April 28<sup>th</sup>, July 28<sup>th</sup>, October 28<sup>th</sup>, and January 28<sup>th</sup>, respectively). For tracking purposes samples taken anytime in the first quarter (January through March) will be recorded by the department as though they were taken in March, samples taken anytime in the second quarter (April through June) will be recorded by the department as though they were taken in June, samples taken anytime in the third quarter (July through September) will be recorded by the department as though they were taken in September, and samples taken anytime in the 4<sup>th</sup> quarter (October through December) will be recorded by the department as though they were taken in December.

\*\*\*\*\* The total precipitation for the event sampled must be reported. Samples must be taken of a precipitation event that is at least 72 hours from the previously measurable precipitation event.

Note 1 - Outfall #001 shall be sampled at a point where there is no stormwater influence on the non-contact cooling water (sample of cooling water only). Outfall #002 shall be sampled in the storm drain in the east parking lot.

Note 2 - This permit contains a Total Residual Chlorine (TRC) limit.

- (a) If the TRC limit in this permit is 0.01 mg/L or 0.2 mg/L, you must use an analytical method that has a quantification limit of no greater than 0.05 mg/L TRC. For reporting purposes on the discharge monitoring report (DMR), all analytical values below 0.05 mg/L shall be reported as "< quantification limit." All analytical values at or above the quantification limit of 0.05 mg/L shall be reported as the measured value. The permittee shall report the quantification limit in the remarks section of the DMR.

The average monthly effluent values for TRC will be determined by assuming that analytical results below the quantification limit are equivalent to 0 mg/L when calculating the monthly average.

The daily effluent value will be considered equal to 0 mg/L if it is below the quantification limit.

- (b) If the TRC limit in this permit is 1.0 mg/L; you must use an analytical method with a quantification limit between 0.2 and 0.5 mg/L. All analytical values below the quantification limit shall be reported as "< quantification limit." All analytical values at or above the quantification limit shall be reported as the measured value.

The average monthly effluent values for TRC will be determined by assuming that analytical results below the quantification limit are equivalent to 0 mg/L when calculating the monthly average.

The daily effluent value will be considered equal to 0 mg/L if it is below the quantification limit.

- (c) Disinfection is required year-round unless the permit specifically states that "Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31." If your permit does not require disinfection during the non-recreational months, do not chlorinate in those months.

- (d) Do not chemically dechlorinate if it is not needed to meet the limits in your permit.

- (e) If no chlorine was used in a given sampling period, an actual analysis is not necessary. Simply report as "0 mg/L" TRC.

Note 3 – Sampling shall be performed within the first hour of a stormwater discharge event.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:

- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

(1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

C. SPECIAL CONDITIONS (continued)

(2) controls any pollutant not limited in the permit.

- (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
- (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.

3. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
  - (1) One hundred micrograms per liter (100 µg/L);
  - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
  - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

4. Report as no-discharge when a discharge does not occur during the report period.

5. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- (e) There shall be no significant human health hazard from incidental contact with the water;
- (f) There shall be no acute toxicity to livestock or wildlife watering;
- (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;

C. SPECIAL CONDITIONS (continued)

- (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

6. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.

D. SCHEDULE OF COMPLIANCE

Please note that as per 10 CSR 20-7.015(3)(G), effective November 30, 1999:

In addition to other requirements in this section, discharges to Table Rock Lake watershed, defined as hydrologic units numbered 11010001 and 11010002, shall not exceed five-tenths milligrams per liter (0.5 mg/l) of phosphorus as a monthly average according to the following schedule:

Any existing discharge, or any sum of discharges operated by a single continuing authority, with a design flow of 0.1 MGD or greater, but less than 1.0 MGD, shall comply no later than eight (8) years after the effective date of this rule, and shall not exceed one milligram per liter (1.0 mg/l) as a monthly average as soon as possible and no later than four (4) years after the effective date of this rule. (Please note that the effective date of this rule is November 30, 1999, therefore four (4) years after the effective date is December 1, 2003 and eight (8) years after the effective date is December 1, 2007.)

1. Documentation to show that this facility is capable of meeting the one milligram per liter (1.0 mg/l) monthly average phosphorus effluent limitation that became effective December 1, 2003 shall be submitted to the Missouri Department of Natural Resources, Southwest Regional Office, 2040 W. Woodland, Springfield, MO 65807, within 60 days of the effective date of this permit. If this facility is not capable of meeting the aforementioned effluent limitation then a complete application for construction permit for the facility upgrades required to meet the aforementioned phosphorus limits shall be submitted to the Missouri Department of Natural Resources, Southwest Regional Office, 2040 W. Woodland, Springfield, MO 65807, within 60 days of the effective date of this permit. Please note that the Department suggests that any upgrades completed in order to meet the 1.0 mg/l effluent limitation also be capable of meeting the 0.5 mg/l effluent limitation in order to alleviate the need to obtain an additional construction permit to comply with the remaining portions of the regulations. If these initial upgrades will not allow the facility to meet the 0.5 mg/l effluent limitation a complete application for construction permit for the additional facility upgrades required to meet the 0.5 mg/l effluent limitation shall be submitted to the Missouri Department of Natural Resources, Southwest Regional Office, 2040 W. Woodland, Springfield, MO 65807, no later than April 1, 2006.
2. If a construction permit was required by the above then within 30 days of construction completion of the facility upgrades submit a complete application for a modified Missouri State Operating Permit to the Missouri Department of Natural Resources, Southwest Regional Office, 2040 W. Woodland, Springfield, MO 65807, within 30 days of construction completion.

# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FACT SHEET

June 12, 2003

This fact sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0002101

FACILITY NAME: GE Industrial Systems  
2401 East Sunshine  
Springfield, MO 65804

OWNER NAME: GE Industrial Systems  
41 Woodford Ave.  
Plainville, CT 06062

FACILITY LOCATION: SE ¼, SE ¼, Sec. 29, T29N, R21W, Greene County

RECEIVING STREAM: Unnamed Tributary to Galloway Branch (U)

FACILITY CONTACT: Ms. Amanda Hiatt, 417-875-7135

## FACILITY DESCRIPTION AND RATIONALE

GE Industrial Systems has applied for an operating permit renewal for their existing wastewater facilities.

GE Industrial Systems currently has two (2) outfall(s):

### Outfall 001 - Industry - SIC 3621

Non-contact cooling water.  
Design flow is 0.420 million gallons per day.  
Actual flow is 0.214 million gallons per day.

*Changes proposed for Outfall #001 consist of the addition of interim and final effluent limitations and a schedule of compliance in order to comply with the phosphorus effluent limitations promulgated under 10 CSR 7.015(3)(G).*

## Outfall 002 - Industry - SIC 3621

Stormwater runoff.  
Flow is dependent upon precipitation.

*Changes proposed for Outfall #002 consist of the addition of interim and final effluent limitations and a schedule of compliance in order to comply with the phosphorus effluent limitations promulgated under 10 CSR 7.015(3)(G). The lowering of Oil & Grease effluent limitations from 20 mg/L as a daily maximum and 15 mg/L as a monthly average to 15 mg/L as a daily maximum and 10 mg/L as a monthly average in order to comply with 10 CSR 20-7.031 - Table A., which states the in-stream chronic Oil and Grease limit is 10 mg/L.*

All outfalls discharge to an Unnamed Tributary of Galloway Branch (U), a tributary of Galloway Creek (P) (03373). Galloway Creek is listed for the following beneficial uses in 10 CSR 20-7, Table H:

Livestock & Wildlife Watering

Protection of Warm Water Aquatic Life and Human Health – Fish Consumption

Effluent limitations and monitoring requirements are being established in accordance with the Missouri Clean Water Commission Regulations 10 CSR 20-7.015 Effluent Regulations and 10 CSR 20-7.031 Water Quality Standards.

This permit will be issued for a period of five (5) years.